ABSTRACT OF THE DISCLOSURE

A computed tomography apparatus includes a two-dimensional data acquisition system which acquires projection data of a radiographic region within a subject using a multirow detector, and a hybrid image reconstruction system which reconstructs an image of the radiographic region on the basis of both the projection data and additional data calculated from the projection data. The hybrid image reconstruction system functionally includes a unit for calculating an additional intermediate beam data set, a unit for executing hybrid reconstruction of an oblique section, and a unit for generating a parallel section group. Owing to the construction, there are provided an image reconstruction method which is practicable and which affords a high precision, and a three-dimensional CT system which has the functions of the image reconstruction method.